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Amdt. dated 18 January 2007
Reply to Office Action of 18 October 2006

REMARKS

As noted above, the Applicants appreciate the Examiner's thorough examination of the subject application.

Claims 1, 5-13, 26, 28, 29 and 33 remain in the application. Claims 2-4, 14-25, 27, 30-32 and 34-36 have been cancelled. No new matter has been added.

In the Office Action mailed 18 October 2006, the Examiner rejected claims 1, 5-13, 26, 28, 29, and 33, as described in further detail below.

Applicants respectfully **request reconsideration and further examination** of the application based on the preceding amendments and the following remarks.

Claim Rejections – 35 U.S.C. § 103

Concerning items 4-5 of the Office Action, claims 1, 5-13, 26, 28, 29, and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,725,194 to Bartosik et al. ("Bartosik") in view of U.S. Patent No. 6,246,981 to Papineni et al. ("Papineni"). Applicants respectfully traverse this rejection and ask for reconsideration for the following reasons.

One requirement for a rejection under 35 U.S.C. § 103(a) is that the cited reference(s) teach or suggest all of the limitations of the claims at issue. In this situation, the combination of Bartosik and Papineni **fails to teach or suggest all of the limitations** as recited claim 1 (from which claims 5-13 depend), claim 26 (from which claim 28 depends), and claim 29 (from which claim 33 depends), as is explained below.

Representative of the independent claims in the subject application, claim 1 recites the following:

1.   A speech recognition system comprising:
        a querying device for posing at least one query to a respondent over a telephone;
        a speech recognition device which receives an audio response from said respondent over the telephone and conducts a speech recognition analysis of said audio response to automatically

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produce a corresponding text response;

a storage device for recording and storing said audio response as it is received by said speech recognition device;

an accuracy determination device for automatically comparing said text response to a text set of expected responses and determining whether said text response corresponds to one of said expected responses, wherein said accuracy determination device is configured and arranged to determine whether said text response corresponds to one of said expected responses within a predetermined accuracy confidence parameter and to flag said audio response so as to produce a flagged audio response for further review by a human operator when said text response does not correspond to one of said expected responses within said predetermined accuracy confidence parameter; and

a human interface device for enabling said human operator to hear said flagged audio response and review the corresponding text response for the flagged audio response to determine the actual text response for the flagged audio response, either by selecting from a pre-determined list of text responses or typing the actual text response if no such match exists in the pre-determined list of text responses.

[Emphasis added]

Independent claims 26 and 29 recite method limitations similar to the system limitations recited in claim 1.

In contrast, Bartosik teaches a speech recognition device including speech recognition means arranged for recognizing text information (RTI) corresponding to received voice information (AI) by evaluating the voice information (AI) and a speech coefficient indicator (SKI, PRI, SMI, WI), and including correction means for correcting the recognized text information (RTI) and for producing corrected text information (CTI), and included text comparing means for comparing the recognized text information (RTI) with the corrected text information (CTI) and for determining at least a correspondence indicator (CI) and the adjusting means are provided for adjusting the stored speech coefficient indicator (SKI, PRI, SMI, WI) by evaluating only one of such text parts (P2) of the corrected text information (CTI) whose correspondence indicator (CI) has a minimum value (MW). *See* Bartosik, *e.g.*, Abstract

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For the rejection, the Examiner stated that Bartosik teaches the emphasized portion of claim 1 *supra*, citing Bartosik at col. 6, lines 7-16 and col. 9, lines 1-62. Applicants disagree as Bartosik is **not understood as teaching (or suggesting) flagging of an audio response** in the way claimed by Applicants. Bartosik actually teaches systems and methods that functions similar a dictation machine. *See, e.g.,* Bartosik, col. 3, lines 8-11 ("FIG. 1 shows a computer 1 by which a speech recognition program according to a speech recognition method is run, which computer 1 forms a dictating machine with a secondary speech recognition device.")

Applicants note that Bartosik relies upon a **user reading all recognized text information** to determine erroneous recognitions:

> The recognized text information RTI recognized by the speech recognition means 42 and stored in the recognized-text memory means 45 is then read out by the text processing means 48 and displayed on the monitor 4. **The user recognizes** that the two uttered words "order" and "Harry" **were recognized erroneously** and he/she would like to correct the recognized text information RTI, because of which the user activates with the input means 14 of the dictation microphone 2 the correction mode of the speech recognition device.
>
> (col. 8, lines 6-15) [Emphasis added]

In response to Applicants' similar previous assertion on this point, the Examiner stated the following in item 6 of the Office Action:

> The examiner disagrees with the applicant's assertion because Bartosik teaches, above limitation at col. 6, lines 7-16 and col. 9, lines 1-62 as indicated in the claim rejection. Particularly here claimed "produce a flagged audio response" reads on "in the text comparing means is determined a minimum value MW for the correspondence indicator CI."

Applicants respectfully disagree with the Examiner's statement.

The paragraph of the cited portion of Bartosik and the preceding paragraph of the Bartosik specification explain a key difference between Bartosik and Applicants' claims: namely, that the systems and methods of Bartosik derive a numerical value (the correspondence indicator CI) that is used for the adjustment of a speech coefficient indicator SKI during operation in a training mode – this correspondence indicator (CI) is not used to flag an audio response in the way claimed by

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Applicants:

> Furthermore, the text comparing means 52, when comparing the recognized text information RTI and the corrected text information CTI, **are provided for determining a correspondence indicator CI for each text part.** The text comparing means 52 then determine how many matching words featured by a grey field a text part contains. Furthermore, the text comparing means 52 determine penalty points for each text part, with one penalty point being awarded for each insertion, deletion or substitution of a word in the corrected text information CTI. **The correspondence indicator CI of the text part is determined from the number of the corresponding words and penalty points of a text part.**
>
> In the text comparing means 52 is determined a minimum value MW for the correspondence indicator CI, which minimum value is fallen short of when for a text part more than three penalty points are awarded for corrections of adjacent words of the corrected text information CTI. **For the adjustment of the speech coefficient indicator SKI, only text parts are used whose correspondence indicator CI exceeds the minimum value MW.**
>
> (Bartosik, col. 9, lines 43-62) [Emphasis added]

Bartosik further explains that the adjustment of the SKI occurs in a training mode – not a normal use mode:

> **When the initial training mode is activated,** the text processing means 47 are arranged for reading out the training text information TTI from the training-text memory means 47 and for feeding respective picture information PI to the monitor 4. A user can then utter the training text displayed on the monitor 4 into the microphone 6 to adjust the speech recognition device to the user's type of pronounciation [sic].
>
> **The speech recognition device has adjusting means 50 for adjusting the speech coefficient indicator SKI** stored in the speech-coefficient memory means 38 to the type of pronounciation [sic] of the user and also to words and word sequences commonly used by the user. The text memory means 43, the correction means 49 and the adjusting means 50 together form the training means 51. Such an adjustment of the speech coefficient indicator SKI takes place when the initial training mode is activated in which the training text information TTI read by the user is known.
>
> Such an adjustment, however, also takes place in an adjustment mode in which text information corresponding to voice information is recognized as

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> recognized text information RTI and is corrected by the user into corrected text information CTI. **For this purpose, the training means 51 include text comparing means 52, which are arranged for comparing the recognized text information RTI with the corrected text information CTI and for determining at least a correspondence indicator CI. In the text comparing means 52 an adjustment table 53 shown in FIG. 4 is established when the adjustment mode is on, which table will be further explained hereinafter.**

(Bartosik, col. 6, line 47 through col. 7, line 9.) [Emphasis added]

Bartosik, therefore, fails to teach or suggest at least one element of Applicants' claims, *e.g.*, "an accuracy determination device for automatically comparing said text response to a text set of expected responses and determining whether said text response corresponds to one of said expected responses, wherein said accuracy determination device is configured and arranged to determine whether said text response corresponds to one of said expected responses within a predetermined accuracy confidence parameter and to flag said audio response so as to produce a flagged audio response for further review by a human operator when said text response does not correspond to one of said expected responses within said predetermined accuracy confidence parameter;" for example as recited in claim 1.

The secondary reference, Papineni, further contrasts with Applicants' claims and is directed to a speech recognition and synthesis system that includes a natural language task-oriented dialog manager. Papineni teaches only a general text-to-speech synthesizer. For example, Papineni merely teaches that "hub 10 passes speech data to the speech recognizer 20 which in turns passes the recognized text back to the hub." *See* Papineni, col. 7, lines 66-67. Papineni even goes as far as stating its invention focuses on the dialog manager and script and not the described speech recognizer or text-to-speech synthesizer. *See* Papineni, col. 8, lines 12-18. Papineni does not teach or suggest, *e.g.*, **flagging an audio response in the event a predetermined confidence parameter is not met.** As a result, Papineni fails to cure the noted deficiencies of Bartosik relative to the Applicants' claims.

Consequently, the cited combination of Bartosik and Papineni (regardless of whether the references are considered together or separately) is an improper basis for a rejection of claims 1, 5-13, 26, 28, 29, and 33 under 35 U.S.C. § 103(a). Applicants therefore request that the rejection of

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claims 1, 5-13, 26, 28, 29, and 33 under 35 U.S.C. § 103(a) be removed.

Conclusion

In view of the remarks submitted herein, Applicants respectfully submit that all of the claims now pending in the subject application are in condition for allowance, and therefore request a Notice of Allowance for the application.
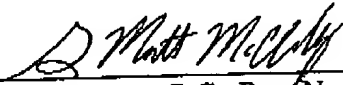
Authorization is hereby given to charge any required fees and/or to credit any overpayments to deposit account No. 50-1133.

If the Examiner believes there are any outstanding issues to be resolved with respect to the above-identified application, the Examiner is invited to telephone the undersigned at his earliest convenience so that such issues may be resolved.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

Date: ___1/18/07___

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